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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/383,662	08/26/1999	AIQUN HU	9661-0005-99	6865

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EXAMINER

YEH, EDITH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/383,662

Applicant(s)

HU ET AL.

Examiner

Edith M Yeh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

On page 10 line 2, the term "discloses" is suggested to be changed to "is", "for", "relates", etc. On line 8, it suggests to delete the term "disclosed", or replace it with "invention", etc.

2. The disclosure is objected to because of the following informalities:

On page 3 line 28, page 4 line 9-10, & 16, the acronym "MDPSK" is not defined before use it.

Appropriate correction is required.

Claim Objections

3. Claims 2, 6 & 7 are objected to because of the following informalities:

Regarding claim 2, the term "said frequency generator" (page 7 line 19) lacks antecedence, it is suggest to change it to "a frequency generator" or add an antecedence in the claim or its parent claims before citing it; the term "the VCO" (page 7 line 26) is suggested to be changed to "a VCO"; the term "said frequency generating means" (page 7 line 27) lacks antecedence, add an antecedence in the claim or its parent claims before citing it.

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Regarding claim 6, "The receiver of claim 1" (page 8 line 16) should be "The receiver of claim 2", since this claim refers the "said X-correlators of claim 2" (page 8 line 18), however the claim 1 doesn't have the "said X-correlators". Change "The receiver of claim 1" to "The receiver of claim 2", the claim 2 has "The receiver" (page 7 line 11), and "X-correlators" (page 7 line 23) which is the antecedence of "said X-correlators" cited in this claim.

Regarding claim 7, "The receiver part of claim 1" (page 8 line 25) should be "The receiver part of claim 2", since this claim refers the "said frequency generator of claim 2" (page 8 line 31), however the claim 1 doesn't have the "said frequency generator". Change "The receiver part of claim 1" to "The receiver part of claim 2", the claim 2 has "The receiver" (page 7 line 11) and "frequency generator" (page 7 line 19).

On page 9 line 1, the term "one-data-bit-dalay-line" should be "one-data-bit-delay-line".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobrica (U.S. Patent 5875215) in view of Hostetter (U.S. Patent 4866395).

Dobrica discloses a spread spectrum communication system (column 1 lines 4-8) wherein the receiver receiving MPSK signals comprising: means for receiving the modulated MPSK

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signals (column 1 lines 28-31), wherein the receiving means comprises a carrier recovery (column 1 lines 10-14) and tracking means (column 2 lines 18-21), a synchronization means (column 1 lines 14-17) and a data demodulation means (column 1 lines 18-31), however does not specify the number of data bits grouping into one symbol. Hostetter shows the MPSK constellations (column 1 lines 48-59, FIG. 1A & 1B). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the constellation patterns taught by Hostetter's and the inherent MPSK definition to derive the number of data bits m grouping into one symbol is $m = \log_2 M$, M is the number of keying phases of MPSK signals to have a MPSK modulation scheme (column 1 lines 28-36).

Allowable Subject Matter

Claims 3-5, 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Yeh whose telephone number is 7033053416. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 7033054714. The fax phone numbers for the

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organization where this application or proceeding is assigned are 7038729314 for regular communications and 7038729314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 7033054800.

Edith Yeh
February 21, 2003



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600